



U.S. Department
of Transportation

**Research and
Special Programs
Administration**

JUN 26 2000

400 Seventh Street, S.W.
Washington, D.C. 20590

DOT-E 12411

EXPIRATION DATE: May 31, 2002

(FOR RENEWAL, SEE 49 CFR § 107.109)

1. GRANTEE: International Fuel Cells
South Windsor, Connecticut
2. PURPOSE AND LIMITATION:
 - a. This exemption authorizes the transportation in commerce of a fuel cell gasoline reforming apparatus containing non-bulk quantities of certain Division 4.2 self-heating solid catalyst pellets within several non-DOT specification stainless steel process vessels. This exemption provides no relief from the Hazardous Materials Regulations (HMR) other than as specifically stated herein.
 - b. The safety analyses performed in development of this exemption only considered the hazards and risks associated with transportation in commerce. The safety analyses did not consider the hazards and risks associated with use as a component of another device, or other uses not associated with transportation in commerce.
3. REGULATORY SYSTEM AFFECTED: 49 CFR Parts 106, 107 and 171-180.
4. REGULATIONS FROM WHICH EXEMPTED: 49 CFR § 173.212 in that a non-DOT specification packaging is authorized as prescribed herein.
5. BASIS: This exemption is based on the application of International Fuel Cells (IFC) dated January 19, 2000 and additional correspondence of March 7 and April 28, 2000, submitted in accordance with § 107.105 and the public proceeding thereon.

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6. HAZARDOUS MATERIALS (49 CFR § 172.101):

| Proper Shipping Name/ Hazardous Materials Description | Hazard Class/ Division | Identi- fication Number | Packing Group |
|---|------------------------------|-------------------------------|------------------|
| Self-heating solid, inorganic, n.o.s. (Nickel metal de- sulfurizing catalyst pellets) | 4.2 | UN3190 | II |
| Self-heating solid, inorganic, n.o.s. (Copper/Zinc shift conversion catalyst pellets) | 4.2 | UN3190 | II |

7. SAFETY CONTROL MEASURES:

a. PACKAGING -

(1) The Nickel metal de-sulfurizing catalyst pellets must be packaged and transported under 1.5 to 2.5 psig of dry inert gas pressure within a totally sealed stainless steel vessel which is fabricated, welded, proof tested to a maximum allowable working pressure of 209 psig and inspected according to the ANSI B31.1 Power Piping Code. The total net weight of Nickel de-sulfurizing catalyst pellets may not exceed 20 pounds per gasoline reforming apparatus.

(2) The Copper/Zinc shift-conversion catalyst pellets shall be packaged and transported under 1.5 to 2.5 psig of dry, inert gas pressure within a totally sealed stainless steel vessel which is fabricated, welded, proof tested to a maximum allowable working pressure of 14 psig and inspected according to the ANSI B31.1 Power Piping Code. The total net weight of copper/zinc shift-conversion catalyst pellets may not exceed 110 pounds per gasoline reforming apparatus.

(3) The vessel must be designed in accordance with the IFC Drawing on file with the Office of Hazardous Materials Exemptions and Approvals.

b. OPERATIONAL CONTROLS - The entire gasoline reforming apparatus module incorporating the hazardous materials may not contain other hazardous materials (e.g., gasoline or other flammable liquids) when transported. The apparatus module must be over-packed in a non-specification wooden, metal or plastic transport container.

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8. SPECIAL PROVISIONS:

a. A person who is not a holder of this exemption who receives a package covered by this exemption may reoffer it for transportation provided no modifications or changes are made to the package and it is reoffered for transportation in conformance with this exemption and the HMR.

b. A current copy of this exemption must be maintained at each facility where the package is offered or reoffered for transportation.

c. This exemption serves as a Competent Authority Approval (CA-0006011) issued by the Associate Administrator for Hazardous Materials Safety, Research and Special Program Administration (RSPA), of the United States Department of Transportation, in accordance with Section 22 of the General Introduction to the International Maritime Organization Dangerous Goods (IMDG) Code and Part 1; Chapter 1, paragraph 1.1 of the International Civil Aviation Organization's Technical Instructions for the Safe Transport of Dangerous Goods by Air (ICAO TI).

9. MODES OF TRANSPORTATION AUTHORIZED: Motor vehicle, cargo vessel, cargo aircraft only.

10. MODAL REQUIREMENTS: A current copy of this exemption must be carried aboard each cargo vessel, aircraft or motor vehicle used to transport packages covered by this exemption. The shipper must furnish a copy of this exemption to the air carrier before or at the time the shipment is tendered.

11. COMPLIANCE: Failure by a person to comply with any of the following may result in suspension or revocation of this exemption and penalties prescribed by the Federal hazardous materials transportation law, 49 U.S.C. 5101 et seq:

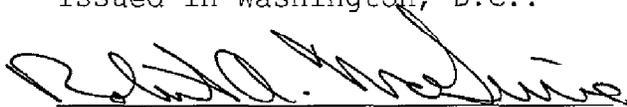
- o All terms and conditions prescribed in this exemption and the Hazardous Materials Regulations, 49 CFR Parts 171-180.
- o Registration required by § 107.601 et seq., when applicable.

Each "Hazmat employee", as defined in § 171.8, who performs a function subject to this exemption must receive training on the requirements and conditions of this exemption in addition to the training required by §§ 172.700 through 172.704.

No person may use or apply this exemption, including display of its number, when this exemption has expired or is otherwise no longer in effect.

12. REPORTING REQUIREMENTS: The carrier is required to report any incident involving loss of packaging contents or packaging failure to the Associate Administrator for Hazardous Materials Safety (AAHMS) as soon as practicable. (Sections 171.15 and 171.16 apply to any activity undertaken under the authority of this exemption.) In addition, the holder(s) of this exemption must inform the AAHMS, in writing, of any incident involving the package and shipments made under the terms of this exemption.

Issued in Washington, D.C.:



Robert A. McGuire
Acting Associate Administrator for
Hazardous Materials Safety

JUN 26 2000

(DATE)

Address all inquiries to: Associate Administrator for Hazardous Materials Safety, Research and Special Programs Administration, Department of Transportation, Washington, D.C. 20590.
Attention: DHM-31.

The original of this exemption is on file at the above office. Photo reproductions and legible reductions of this exemption are permitted. Any alteration of this exemption is prohibited.

Copies of exemptions may be obtained from the AAHMS, U.S. Department of Transportation, 400 7th Street, S.W., Washington, DC 20590-0001, Attention: Records Center, 202-366-5046.

PO: scw